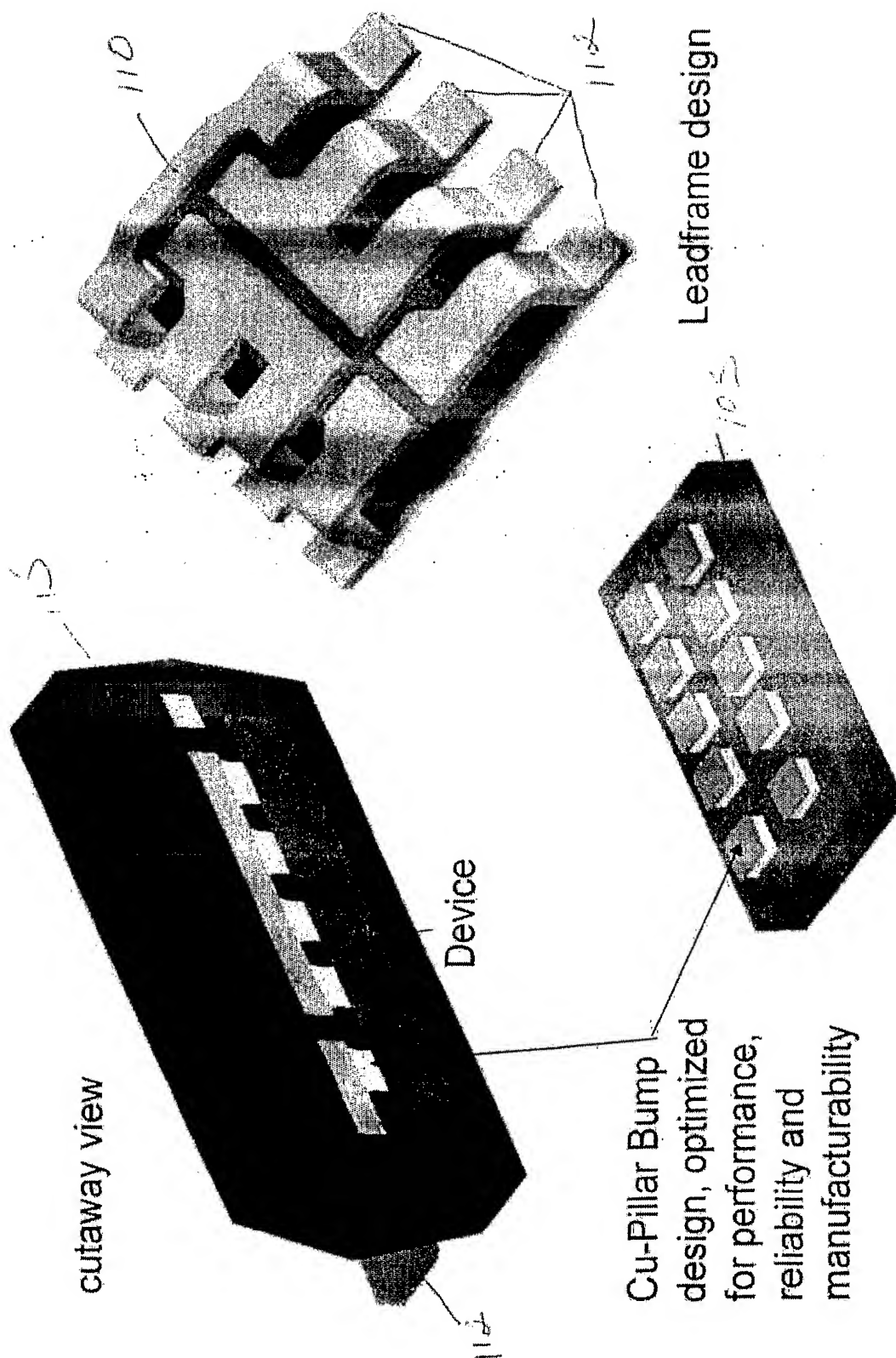


FIGURE 1

FIGURE 2A



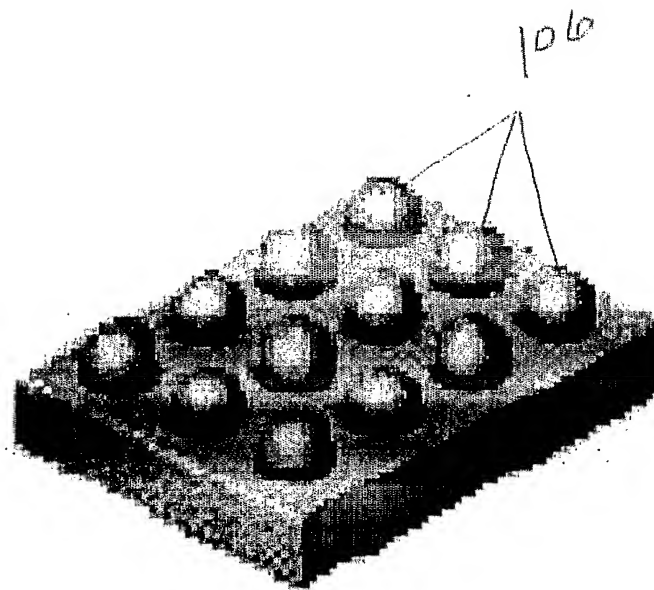
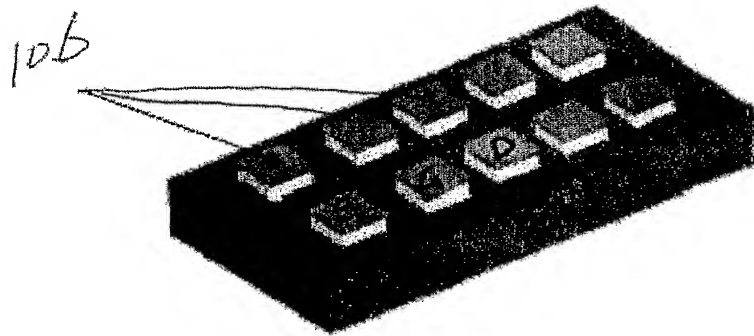


FIGURE 2B

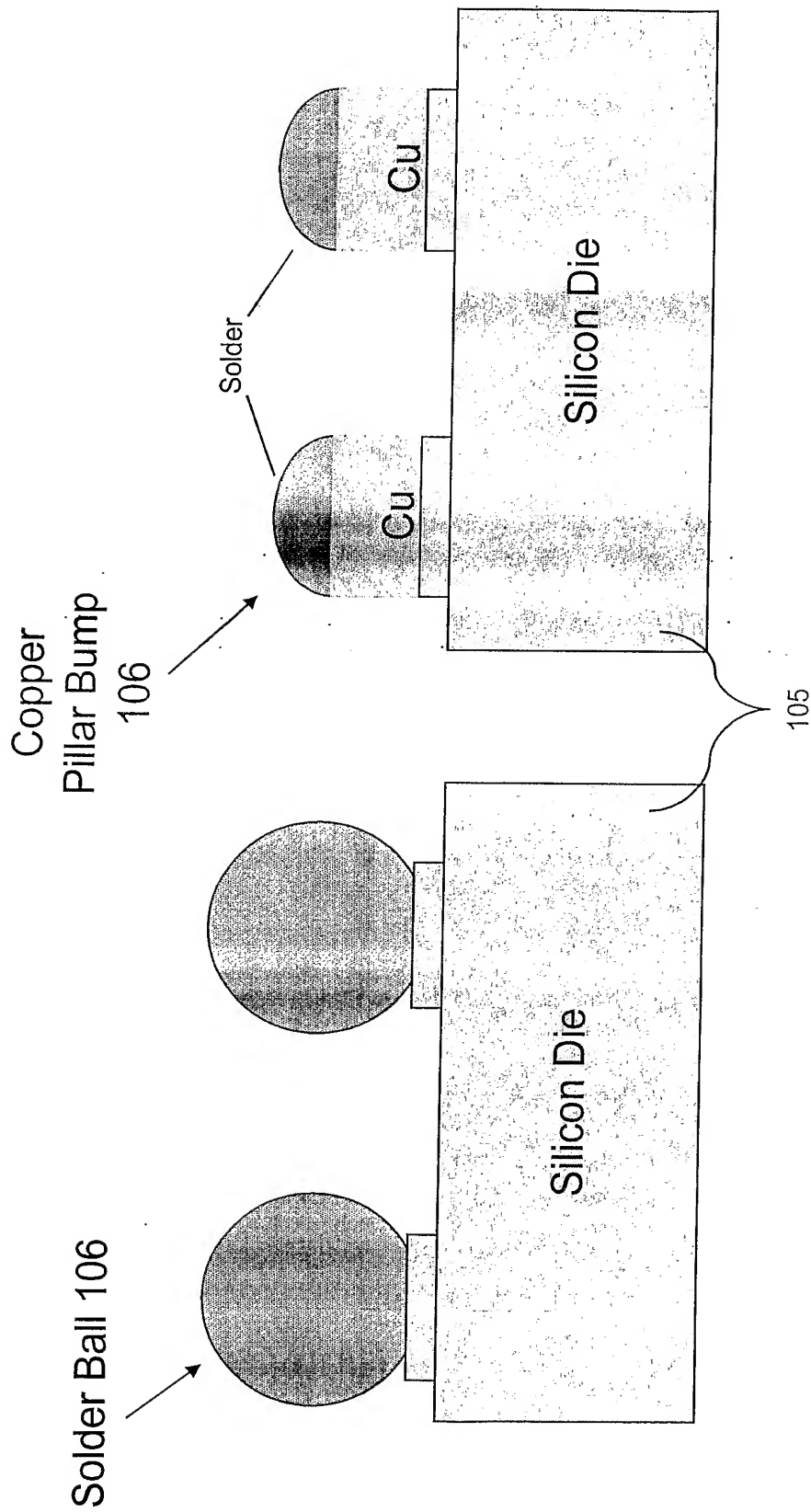


FIG. 2C

FIGURE 3

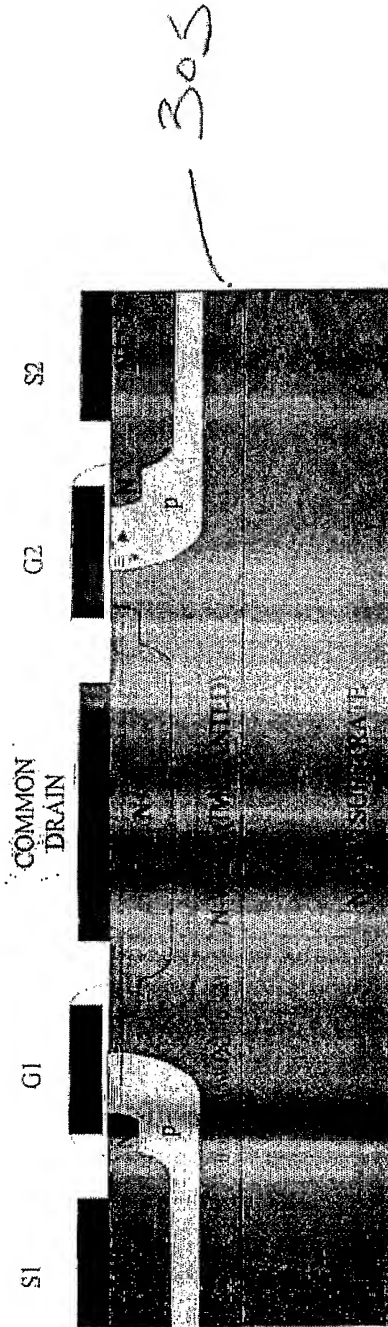
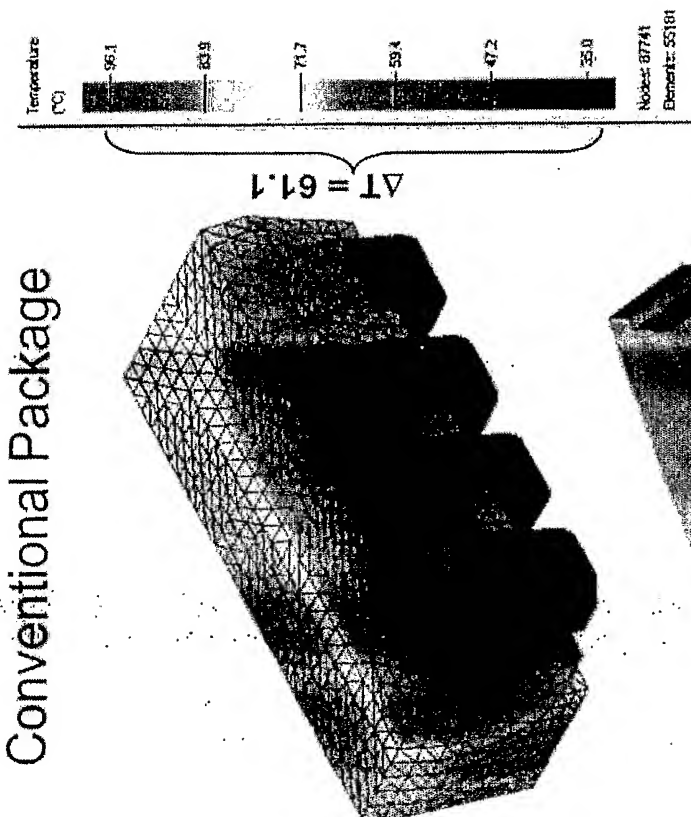
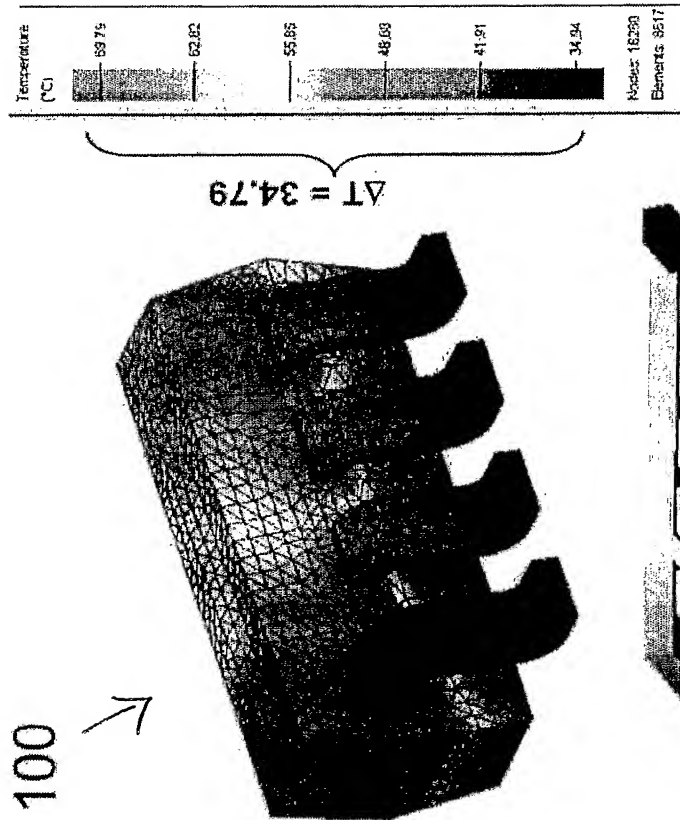


FIGURE 4

Conventional Package



$$\theta = \frac{\Delta T}{\text{Power}} = 61.1^{\circ}\text{C/W}$$



$$\theta = \frac{\Delta T}{\text{Power}} = 34.79^{\circ}\text{C/W}$$

Summary of Results

FIGURE 5

Analysis	CONVENTIONAL PACKAGE	INVENTION 100
Mold Compound	81 C/W	34.6 C/W
Leadframe	1.38 mPa	0.34 mPa
Die	2.35E+08	7.16E+07
Solder on Pillars	1.06E+08	8.14E+07
Cu Pillars	2.35E+08	5.73E+07
Gold wirebonds		6.21E+07
Die attach	2.35E+08	9.90E+07
Max Displacement	3.1 μ M	1.93 μ M
Mold Compound	2.48E+08	1.28E+08
Leadframe	2.99E+08	3.28E+08
Die	2.48E+08	1.08E+08
Solder on Pillars		1.14E+08
Cu Pillars		1.78E+08
Gold wirebonds	2.48E+08	
Die attach	9.32E+07	
Max Displacement	4.0 μ M	5.3 μ M
Mold Compound	2.29E+08	1.18E+08
Leadframe	2.76E+08	3.02E+08
Die	2.29E+08	9.99E+07
Solder on Pillars		1.06E+08
Cu Pillars		1.63E+08
Gold wirebonds	2.29E+08	
Die attach	8.60E+07	
Max Displacement	3.7 μ M	4.9 μ M

FIG. 4

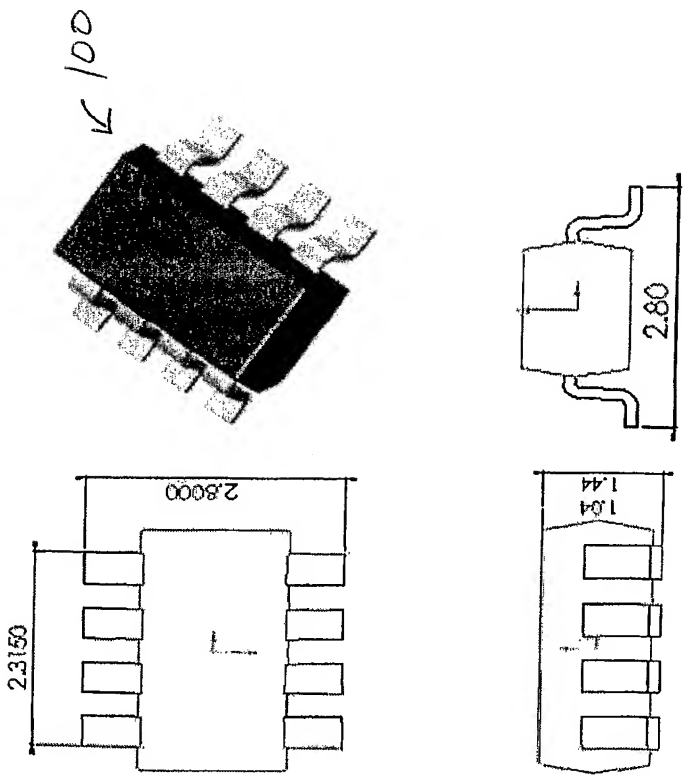
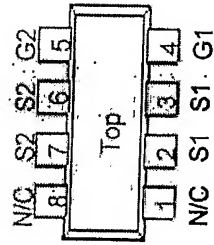


FIG. 7

100



Notes:

1. Dimensions and Tolerances per ANSI Y14.5M, 1982.
2. Mirror finish on package surface.
3. Footlength measured based on the gauge plane method.
4. Dimension exclusive of mold flash and gate burr.
5. Dimension exclusive of solder plating.

